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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,307	03/17/2005	Hiroaki Ozeki	MAT-8654US	6466
23122	7590	12/31/2007	EXAMINER	
RATNERPRESTIA			NGUYEN, DUC M	
P O BOX 980			ART UNIT	PAPER NUMBER
VALLEY FORGE, PA 19482-0980			2618	
			MAIL DATE	DELIVERY MODE
			12/31/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/528,307	<b>Applicant(s)</b> OZEKI ET AL.	
	<b>Examiner</b> Duc M. Nguyen	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This action is in response to applicant's response filed on 11/14/07. Claims 1-2 are now pending in the present application. **This action is made final.**

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-2** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Akira** (JP 04-090220) in view of **Hiroaki** (JP 2001-168748) and **Todd** (US 6,002,672).

Regarding claim **1**, **Akira** teaches a receiver in a time division radio communication system, wherein an operation starting point is controlled before an assigned timeslot to establish a better receiving characteristic condition while a desired program is not received (see Abstract). However, **Akira** is silent on a variable gain circuit for controlling the operation start point of the variable gain circuit to establish a better receiving characteristic condition. However, utilizing such a variable gain circuit for a receiver is known in the art as disclosed by **Hiroaki** (see Abstract). Since one

skilled in the art would recognize the benefit of the variable gain circuit in **Hiroaki**, it would have been obvious to one skilled in the art at the time the invention was made to provide a variable gain circuit in the receiver in **Akira** as well and would work equally well, for providing excellent reception characteristics of a demodulate signal regardless of the fluctuation of an input level.

As to the newly limitation regarding the error ratio measuring circuit, it is noted that utilizing such error measurements in combine with signal strength (or RSSI) for antenna selection is well known in the art as disclosed by **Tood** (see col. 4, lines 30-35 and col. 6, lines 52-65). Therefore, , it would have been obvious to one skilled in the art at the time the invention was made to modify **Akira** for further utilizing the error signal quality (or BER) with the RSSI to account for the co-channel interference as well, for further improving the performance of the receiver.

Regarding claim 2, the claim is rejected for the same reason as set forth in claim 1 above. In addition, it would have been obvious to one skilled in the art to modify **Akira** to provide two different polarized wave antennas as claimed, for utilizing advantages of polarized antennas in a fading/multi-path environment (see **Todd**, col. 3, lines 49-53).

3. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable by of **Rozanski** (US 5,530,926) in view of **Smith** (US 6,009,124).

Regarding claim 1, **Rozanski** teaches a receiver in a time division radio communication system, wherein an operation starting point of a variable circuit is controlled before an assigned timeslot to establish a better receiving characteristic

condition (see Figs. 3, 7 and col. 2, line 30 – col. 4, line 37). Since **Rozanski** teaches RSSI or BER can be both used a signal receiving characteristic condition (see col. 2, lines 26-29), it is clear that **Rozanski** would teach these qualities (BER and RSSI) be used to control the variable gain circuit in the similar way as disclosed by **Smith** (see Abstract, Figs. 3-4). Therefore, the claimed limitations are made obvious by **Rozanski** and **Smith**.

Regarding claim 2, the claim is rejected for the same reason as set forth in claim 1 above. In addition, since utilizing polarized antenna is well known in the art, it would have been obvious to one skilled in the art to modify **Rozanski** to provide two different polarized wave antennas as claimed, for utilizing advantages of polarized antennas in a fading/multi-path environment.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-2 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See the attached PTO-892.

7. **Any response to this final action should be mailed to:**
8. Box A.F.

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

Hand-delivered responses should be brought to Customer Service Window,  
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Application/Control Number:  
10/528,307  
Art Unit: 2618

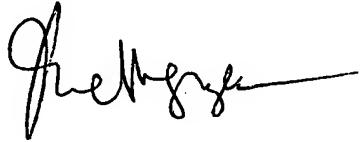
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Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893, Monday-Thursday (9:00 AM - 5:00 PM).

Or to Nay Muang (Supervisor) whose telephone number is (571) 272-7882.

Duc M. Nguyen, P.E.

Dec 18, 2007

A handwritten signature in black ink, appearing to read 'Duc M. Nguyen', with a long horizontal stroke extending to the right.